

CLAIMS

What is Claimed:

1. A compact peripheral component interconnect (CPCI) system, comprising:
- 5 a chassis;
- a circuit board forming a backplane within said chassis;
- a node card coupled with said circuit board and having a central processing unit (CPU) for providing a computational service on said system, said computational service including management and access of said system;
- 10 an Intelligent Platform Management Interface (IPMI);
- an IPMI micro-controller coupled with said circuit board and communicating with said CPU via said IPMI;
- an Inter Integrated Circuit (I2C) interface;
- a field replaceable unit (FRU) coupled with said IPMI micro-controller and
- 15 communicating with said IPMI micro-controller via said I2C interface;
- wherein said IPMI micro-controller off-loads a plurality of management and access functions of said FRU from said CPU to said IPMI micro-controller; and
- wherein said CPU can manage and access said FRU via said IPMI micro-controller.
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2. The CPCI system of Claim 1, wherein said IPMI micro-controller comprises a translation module for translating information to and from said IPMI and said I2C interface.
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3. The CPCI system of Claim 1, further comprising a second node card coupled with said circuit board and communicating with said IPMI micro-controller via said IPMI.

4. The CPCI system of Claim 3, wherein said IPMI micro-controller off-loads a plurality of management and access functions of said second node card from said CPU to said IPMI micro-controller via said IPMI.

5 5. The CPCI system of Claim 1, wherein said IPMI micro-controller manages and accesses said FRU via said I2C interface and wherein said CPU manages and accesses said FRU via said IPMI.

10 6. The CPCI system of Claim 1, wherein said FRU comprises an I2C slave driver and wherein said IPMI micro-controller provides an I2C master driver for said I2C slave driver.

7. The CPCI system of Claim 6, wherein said CPU can manage and access said FRU via said I2C interface without a dedicated external I2C controller.

15 8. The CPCI system of Claim 1, wherein said IPMI micro-controller provides an I2C read command and an I2C write command for managing and access said FRU.

9. A compact peripheral component interconnect (CPCI) system, comprising:
a chassis;
a circuit board forming a backplane within said chassis;
a node card coupled with said circuit board and having a central processing unit
5 (CPU) for providing a computational service on said system, said computational service including management and access of said system;
a first communication interface for communicating with a first type of protocol;
a controller coupled with said circuit board and communicating with said CPU via said first communication interface;
10 a second node card coupled with said circuit board and communicating with said controller via said first communication interface and said first type of protocol;
a second communication interface for communicating with a second type of protocol;
a field replaceable unit (FRU) coupled with said controller and communicating
15 with said controller via said second communication interface and said second type of protocol;
wherein said controller comprises a translation module for translating information to and from said first and second type of protocols via said first and second communication interfaces;
20 wherein said controller off-loads a plurality of management and access functions of said second node card from said CPU to said controller;
wherein said controller off-loads a plurality of management and access functions of said FRU from said CPU to said controller; and
wherein said CPU can manage and access said FRU via said controller.
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10. The CPCI system of Claim 9, wherein said controller comprises a first type of master driver for managing and accessing devices having a first type of slave driver via said first type of protocol and wherein said second node code comprises said first type of slave driver.

11. The CPCI system of Claim 10, wherein said FRU comprises a second type slave driver for managing and accessing by a second type of master driver via said second type of protocol.

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12. The CPCI system of Claim 11, wherein said translation module translates information from said second type of slaver driver via said second type of protocol into information that can be used by said first type of master driver.

10 13. The CPCI system of Claim 11, wherein said translation module translates information from said first type of master driver via said first type of protocol into information that can be used by said second type of slave driver.

14. The CPCI system of Claim 9, wherein said FRU comprising one of a fan unit, a system control board unit, a memory unit, and a power supply unit.

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15. The CPCI system of Claim 9, wherein said controller comprises an Intelligent Platform Management Interface (IPMI) controller.

20 16. The CPCI system of Claim 15, wherein said second type of protocol comprises an Inter Integrated Circuit (I2C) protocol.

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17. The CPCI system of Claim 16, wherein said IPMI controller can be directly connected with said FRU.

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18. The CPCI system of Claim 16, wherein said IPMI controller can be connected with said FRU via an external I2C controller having said second type of master driver.

19. The CPCI system of Claim 18, wherein said translation module translate information from said second type of master driver via said second type of protocol into information that can be used by said IPMI controller.

5 20. The CPCI system of Claim 16, wherein said IPMI controller is connected with said CPU via a plurality of other IPMI controllers.

10 21. The CPCI system of Claim 15, wherein said translation module is located within said IPMI controller and comprises an Inter Integrated Circuit (I2C) services module.

15 22. The CPCI system of Claim 21, wherein said I2C services module is coupled to a nexus driver having a simulated I2C controller for said IPMI controller and a simulated I2C controller for simulating information to said FRU.

23. A method for interfacing a management controller with a field replaceable unit (FRU) of a compact peripheral component interconnect (CPCI) system, comprising:
managing and accessing devices on said system with a node card coupled with said system via a central processing unit (CPU) on said node card;

5 communicating a first type of protocol by said management controller with said CPU via a first communication interface;

communicating said first type of protocol by said management controller with a second node card via said first communication interface;

10 communicating a second type of protocol by said controller with a FRU via a second communication interface;

translating information to and from said first and second type of protocols via a translation module in said management controller;

wherein said management controller off-loads a plurality of management and access functions of said second node card from said CPU to said controller;

15 wherein said management controller off-loads a plurality of management and access functions of said FRU from said CPU to said controller; and

wherein said CPU can manage and access said FRU via said management controller.

20 24. The method of Claim 23, wherein said management controller comprises an Intelligent Platform Management Interface (IPMI) controller.

25 25. The method of Claim 24, wherein said second type of protocol comprises an Inter Integrated Circuit (I2C) protocol and wherein said IPMI controller can be directly connected with said FRU.